

REMARKS

The Telephone Interview

The Examiner is thanked for the courtesy of a telephone interview on February 18, 2009. The above claims were discussed. It was agreed that it would be appropriate to cancel the flow rate limitation from claim 1 in view of the fact that it had previously been added in an attempt to overcome the prior art, but was not deemed to overcome the prior art. It is noted that the flow rate limitation deleted from claim 1 appears in claim 17.

The patentability of the amended claims over the Koontz and Williams references was discussed. The Examiner indicated the claims appeared to be allowable over the prior art, but that she would again review the art. She also indicated she would telephone the undersigned if any further amendments were required. Applicants appreciate this consideration.

The Amendments

Claim 1 has been amended to specify that the modifying gas comprises an organic precursor. Support is found, e.g., in the paragraph bridging pages 9 and 10. Claim 1 has also been amended to specify the functional groups supplied by the modifying gas.

Support is found, e.g., in the paragraph bridging pages 9 and 10 and as-filed claim 7.

Claim 1 has further been amended to delete the flow-rate limitation as being unnecessary for patentability.

Claim 7 has been canceled as redundant.

Claim 8 has been made dependent on claim 1 instead of canceled claim 7.

Claim 27 has been amended to add the limitations of claim 16. Support is found, e.g., in as-filed claim 16.

New claims 55-60 have been added dependent on claim 1. Support is found, e.g., at page 10, lines 21-25, and as-filed claim 16 and 28-32.

No new matter has been added.

The Rejections over Koontz

Claims 1-3, 5, 9, 10, 13, 27-29, 33 and 38-39 have been rejected as obvious under 35 U.S.C. Section 103(a) over Koontz Patent No. 6,022,902. It is submitted that the amendments to claim 1 adequately overcome this rejection. Claim 1 has been amended to specify that the modifying gas is an organic precursor. Koontz, at col. 2, lines 49-50, specifies that the modifying gas is oxygen, ammonia or a mixture of nitrogen and hydrogen, which are *inorganic* gases. Koontz uses non-polymerizing gases that result in functionalization by H-abstraction and etching. In contrast, the presently-claimed process using organic precursors results in plasma polymerization and formation of an additional functional layer on the inner porous surface of the membrane. Koontz neither teaches nor suggests the use of organic modifying gases. Therefore, the amendment overcomes the obviousness rejection.

As all pending claims are dependent on claim 1, it is submitted that all pending claims are patentable over the reference.

In addition, claim 27 has been amended to specify that the membrane is a microporous flat sheet membrane substrate made up of a mixture of polyether sulfone and polyvinylpyrrolidone having a wall thickness of 20-200 µm. These limitations are not found in Koontz. Neither the material used, nor the thinness of the walls is disclosed or suggested in Koontz. New claims 55-60 also contain these limitations, which are not taught in Koontz. For this additional reason, claims 27-33 and 49-60 are patentably non-obvious.

The Previous Rejection over Williams

Previously, claims 1-7, 9, 10, 13, 14, 41, 15, 22, 26, 27, 28, 29, 30-33, 38, 39, 41, 43, 45-47, and 49-54 were rejected as obvious under 35 U.S.C. 103(a) over Williams et al. (6,245,537). If it was intended to repeat the rejection over Williams, it is pointed out that Williams fails to disclose the use of a modifying gas comprising an organic precursor. The only gases taught by Williams are oxygen and ammonia gases (see col. 9, lines 63-64), which are *inorganic* gases. There is no teaching or suggestion in Williams of the use of an organic precursor gas. In view of the fact that all currently-pending claims are dependent on claim 1, none of the claims are obvious over Williams. In addition, Williams does not appear to disclose or suggest a membrane made of the material specified in claims 27 and 55. Withdrawal of the rejection is therefore respectfully requested.

Conclusion

It is submitted that this case is in condition for allowance, and passage to issuance is respectfully requested. It is believed a two-month Extension of Time is required, and a Request for Extension of Time together with the appropriate fee is submitted with this Response. If this is incorrect, please deduct the correct fee, and any fee required for any further extension of time needed, from deposit account 07-1969.

Respectfully submitted,

/ellenwinner/

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Attorney Docket No.: 126-05
February 25, 2009